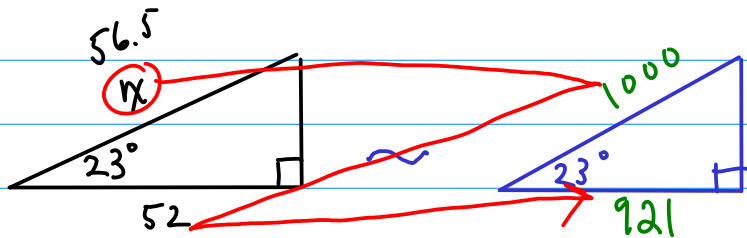


# § 12.1 : Introduction to Trigonometry

Ex:



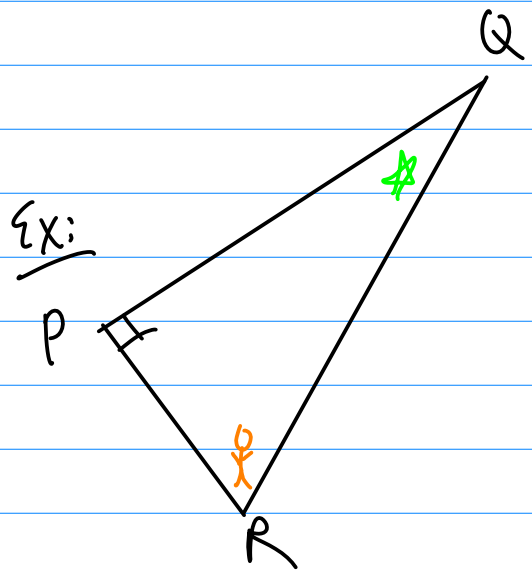
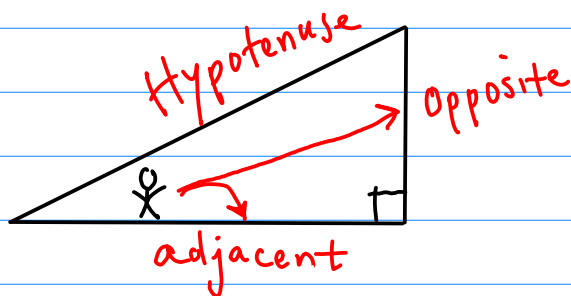
$$\frac{x}{1000} = \frac{52}{921}$$

$$921x = 52000$$

$$x \approx 56.5$$

	cosine
23°	.9205
	↓
	≈ .921
	≈ $\frac{921}{1000}$

• Naming the sides of a rt. Δ:



from \*R

Hyp:  $\overline{RQ}$

Opp:  $\overline{PQ}$

Adj:  $\overline{PR}$

from \*Q

Hyp:  $\overline{RQ}$

Opp:  $\overline{PR}$

Adj:  $\overline{PQ}$

### \* 3 Basic Trigonometric Ratios:

SOH - CAH - TOA

<p>Sine:</p> $\sin \theta = \frac{\text{opp}}{\text{hyp}}$	<p>Cosine:</p> $\cos \theta = \frac{\text{adj}}{\text{hyp}}$	<p>Tangent:</p> $\tan \theta = \frac{\text{opp}}{\text{adj}}$
--	--	---

Greek letter "theta"

Ex: "SOH"

$$\sin P = \frac{QR \leftarrow \text{opp}}{PQ \leftarrow \text{hyp}}$$

Ex: "CAH"

$$\cos Q = \frac{QR \leftarrow \text{adj}}{PQ \leftarrow \text{hyp}}$$

Ex: "TOA"

$$\tan P = \frac{QR \leftarrow \text{opp}}{PR \leftarrow \text{adj}}$$

